Dosage Calculation Worksheet #2

1. The IV order is for D_5W to infuse at 100 mL/hr. The drop factor is 10 gtt/mL. How many drops per minute (gtt/min) should the pump be set to run? Round final answer to whole number.

$$\frac{100\,mL}{60\,min} x \frac{10\,ggt}{mL} = 16.6\,ggt/min$$ = 17ggt/min

2. Medication order: Rocephin 1 g IV every 12 hours over 30 minutes. Available: rocephin 1 g in 150 mL NS. At what rate would you set your pump?

$$\frac{150\,mL}{30\,min}$$ = 5mL/hr

3. Medication order: Vistaril 20 mg IM q4h PRN for nausea. The 10 mL vial that you have available is labeled 25 mg/mL. How many mL will you draw up to give?

$$\frac{25\,mg}{mL} = \frac{20\,mg}{x} \quad 25x = 20 = 0.8\,mL$$

4. Medication order: Haldol 3 mg IM q6h PRN for agitation. The 1 mL vial that you have available is labeled 5 mg/mL. How many mL will you draw up to give?

$$\frac{5\,mg}{mL} = \frac{3\,mg}{x} \quad 5x = 3 = 0.6\,mL$$

5. Medication order: heparin 5000 units subQ every 12 hours. Drug available: heparin 10,000 units/2 mL. How many mL will you administer for the day?

$$\frac{10{,}000\,u}{2\,mL} = \frac{5{,}000\,u}{x} \quad 10{,}000\,x = 10{,}000 = 1\,mL\,PER\,DOSE\,,2\,mL\,PER\,DAY$$

6. A patient has an order for 200 mg q8h of cimetidine (Tagamet) to be administered intramuscularly. The vial of 8 mL contains 300 mg per 2 mL. How many mL would you give q8h?

$$\frac{300\,mg}{2\,mL} = \frac{200\,mg}{x} \quad 300\,x = 400 = 1.3\,mL$$

7. Medication order: Garamycin 80 mg IVPB over 30 minutes. Available: Garamycin (gentamicin sulfate) 80 mg in 50 mL of D_5W. Calculate the flow rate in mL/hr.

$50\,mL\,x\,2-30\,min=70\,mL/hr$

8. You have an IV infusing at 125 mL/hr. How long will it take 1500 mL to infuse?

$$\frac{125\,mL}{hr}=\frac{1{,}500\,mL}{x}\;125\,x=1{,}500=12\,hrs$$

9. Medication order: rocephin g 1 IV every 12 hours over 30 minutes. Available: rocephin 1 g in 150 mL NS. At what rate would you set your pump?

$$\frac{150\,mL}{30\,min}=5\,mL/hr$$

10. An infusion pump is set to administer 75 mL/hr to a patient. How many hours will it take for the patient to receive 600 mL of fluid?

$$\frac{75\,mL}{hr}=\frac{600\,mL}{x}\;75\,x=600=8\,hrs$$

11. A patient is to receive lidocaine hydrochloride (Xylocaine) 100 mg as an intravenous bolus. The Xylocaine is labeled 20 mg/mL. How many milliliters should be administered?

$$\frac{20\,mg}{mL}=\frac{100\,mg}{x}\;20\,x=100=5\,mL$$

12. Medication order: 50 mg/kg/day. Patient weight: 85.8 pounds. The patient will receive ____ mg/day.

$$85.8\,lb\,x\,\frac{1\,kg}{2.2\,lb}=39\,kg\;\frac{50\,mg}{kg\,x\,day}\,x\,39\,kg=1{,}950\,mg/day$$

13. Medication order: Amoxicillin 2.5 mL every 8 hours. Available is Amoxicillin 250 mg/5mL. The nurse will administer how many mg for the day?

$$\frac{250\,mg}{5\,mL}=\frac{x}{2.5\,mL}\;5\,x=625=125\,mg\,x\,3=375\,mg/day$$

14. Medication order: Ondansetron 2 mg – 4 mg/kg/Q 4 hours po PRN nausea. The patient weighs 66 lbs. What is the minimum amount of medication in grams that can be administered every 4 hours?

$$66\,lb\,x\,\frac{1\,kg}{2.2\,lb}=30\,kg\;\;30\,kg\,x\,\frac{2\,mg}{kg\,x\,4\,hrs}=60\,mg=0.06\,g$$

15. Medication order: 5 mL of normal saline is added to a vial of Lasix 20 mg/5 mL. How many milligrams of Lasix are in each millimeter of fluid?

$$\frac{20\,mg}{5\,mL}=\frac{x}{5\,mL}\;\;5\,x=100=20\,mg$$